Supplementary Information

Sulfur and iron accumulation in three marine-archaeological shipwrecks in the Baltic Sea

The Ghost, the Crown and the Sword

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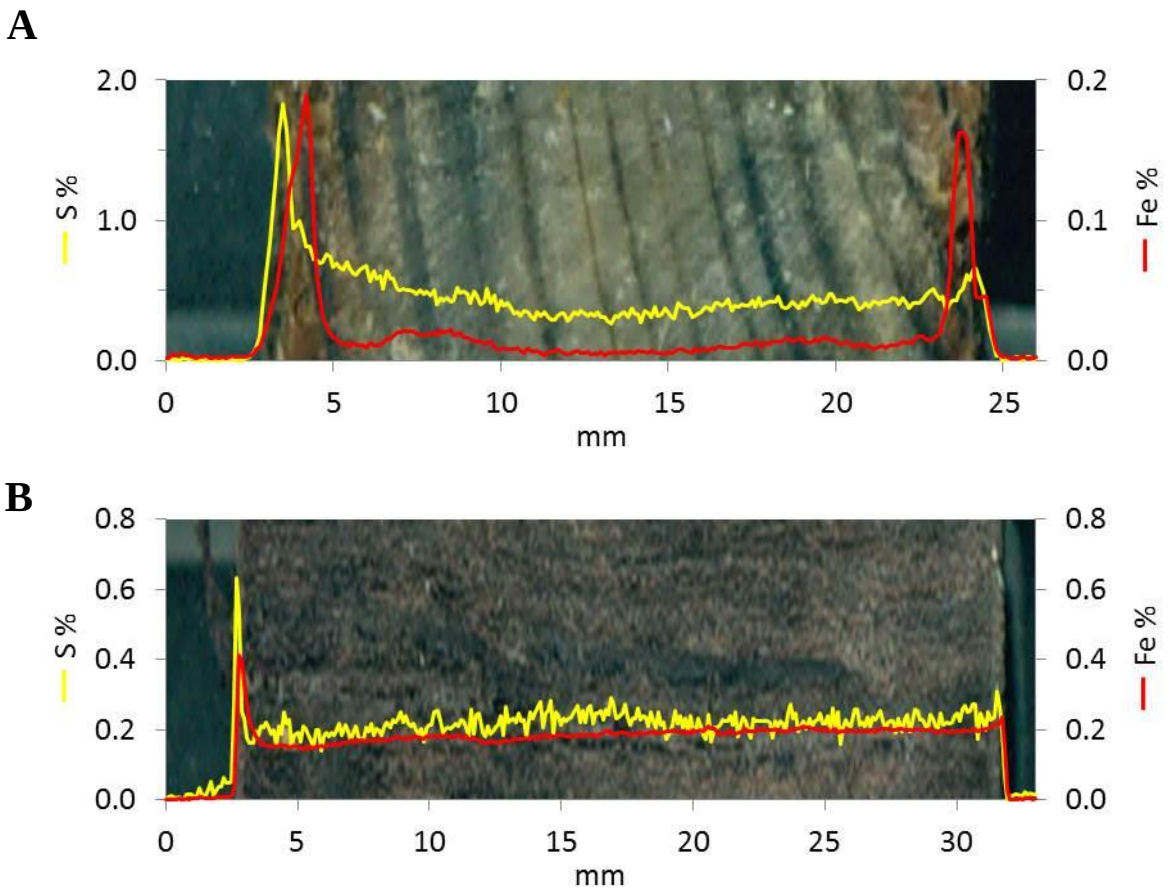

Figure S1. XRF-scans of the Ghost wreck samples 1b (**A**) **& 2b (B).** The iron and sulfur accumulation profiles (note the different scales) are fairly interrelated, although the larger peaks appear slightly shifted close to the surface region in sample Ghost 1b (**A**), as also in 2a, Fig. 2B. The iron concentration in the inner parts of the wood is generally low; ~0.2 mass% Fe in Ghost 2 and <0.02 mass% total Fe in Ghost 1.

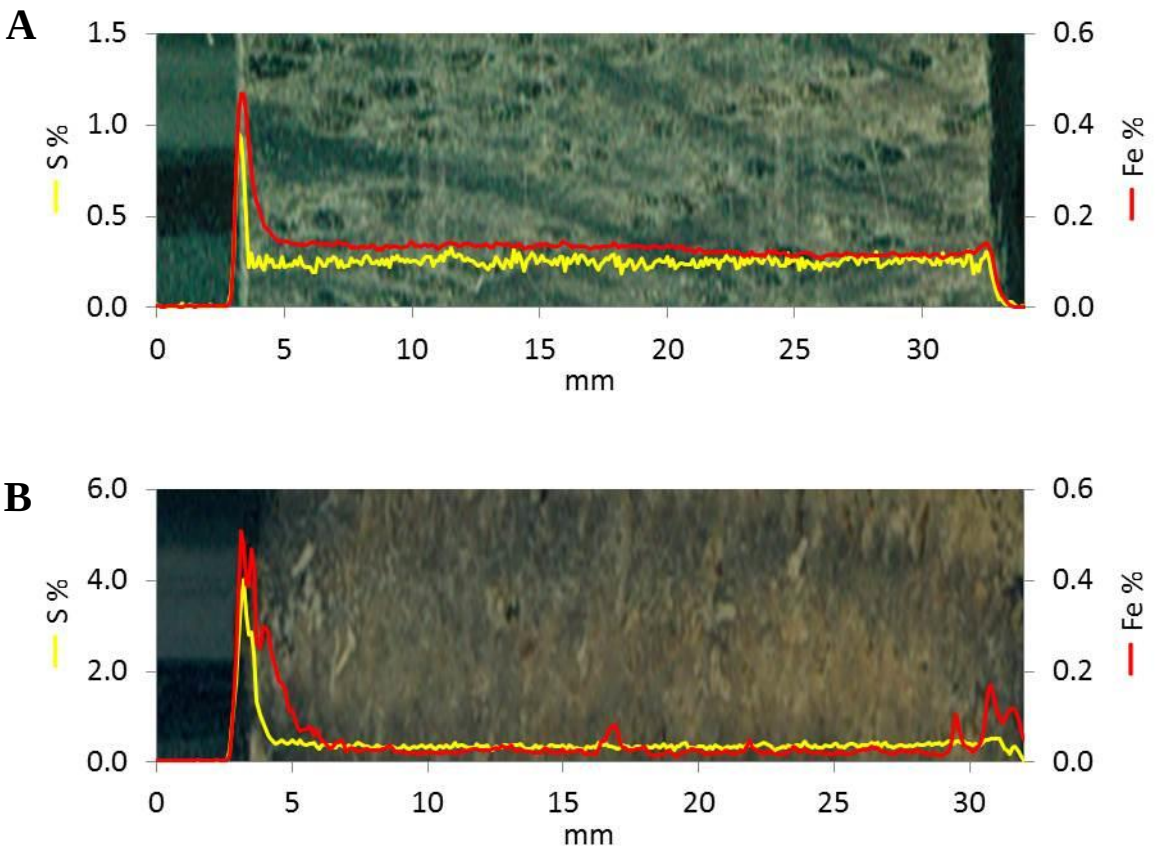

Figure S2. XRF-scans of the Crown samples 1a (**A**) **& 2b (B).** The more anaerobically preserved wood of sample Crown 1a and 1b (Fig. 3A) shows lower accumulation of sulfur (but not iron, note the different scales) than the relatively aerobic samples Crown 2b (**B**) and 2a (Fig. 3B). The difference in sulfur concentration in the surfaces of the neighboring Crown 2a and Crown 2b from the same part of the wood demonstrate the inhomogeneity of the accumulation.

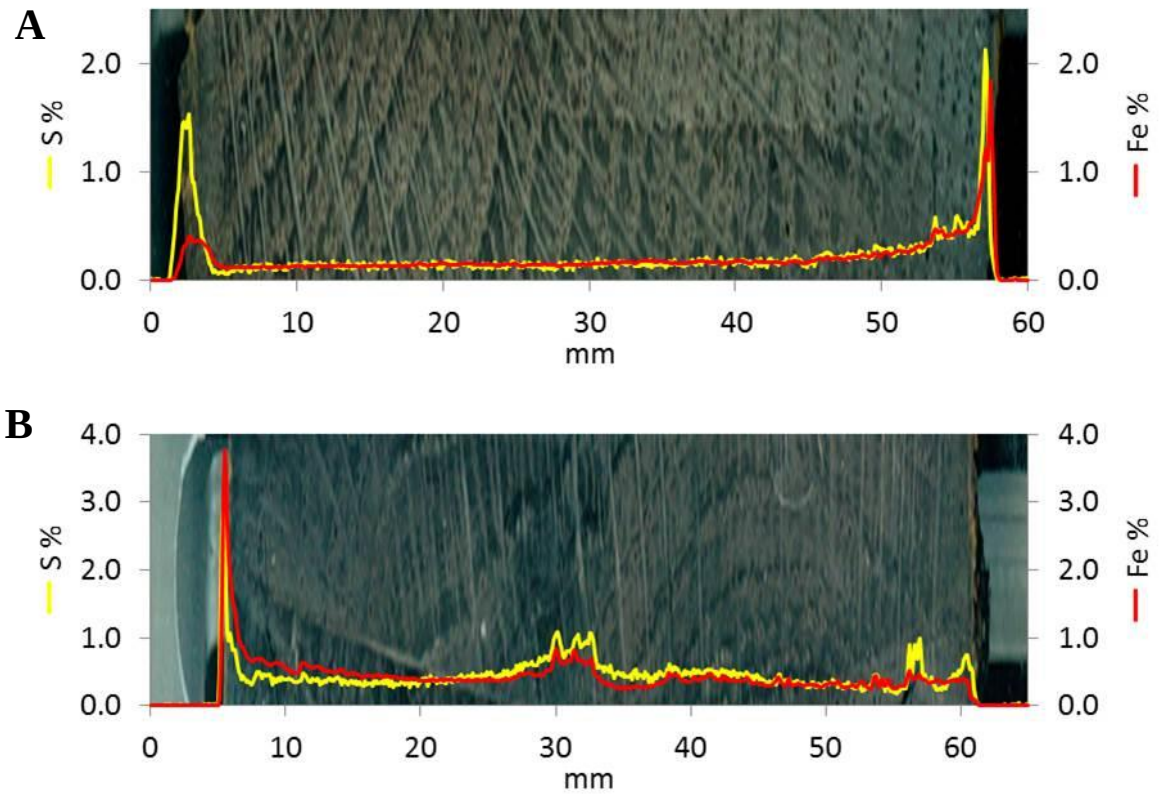

Figure S3. XRF-scans of the Sword samples 1b (A) & 1d (B).

The samples from the *Sword* show closely correlated sulfur and iron accumulation profiles throughout the wood, however sometimes with a small shift between the larger sulfur peaks and iron peaks at the surfaces.

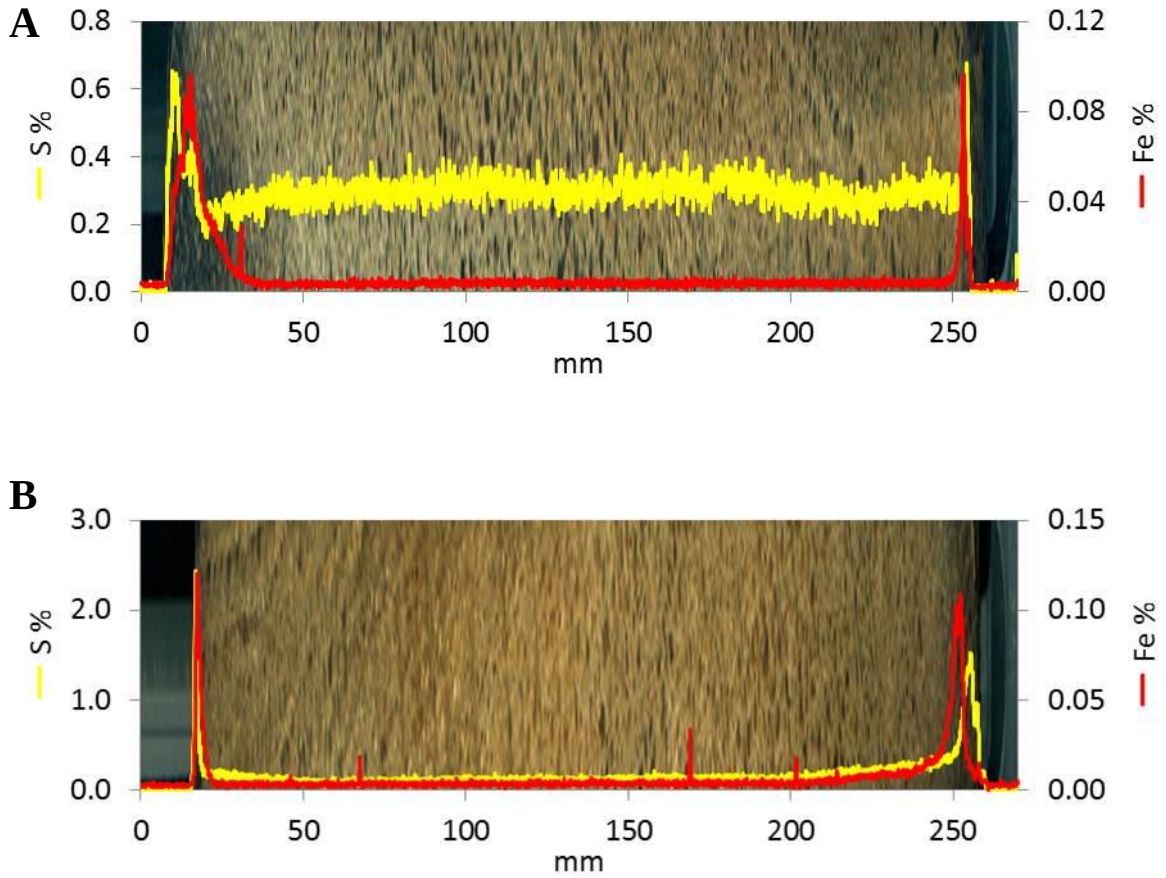

Figure S4. XRF-scanning of the Sword samples 2a & 2b. Again the sulfur and iron accumulation is highest at the surfaces, although with much lower iron concentration (note the different scales). The sulfur and iron accumulation show closely interrelated profiles, however with a small shift between the peaks at higher concentrations. The sulfur concentration is also significantly higher in sample 2b (**B**) than in sample 2a (**A**) which is taken from the opposite side of the same object.

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